

Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 10. Specifically, the legend "PRIOR ART" has been added to Fig. 10. This sheet, which includes Figs. 10-11, replaces the original sheet including Figs. 10-11.

Attachments: Replacement Sheet
Annotated Sheet Showing Changes

REMARKS/ARGUMENTS

Claim 11 has been amended by this Response. Claims 12-13, 15-16 and 18-20 have been previously cancelled. Claims 37-39 have been added herein. Claims 1-11, 14, 17 and 21-39 are currently pending in this application, and are at issue herein.

Amendments to Drawings

The Office Action objects to the drawings as not including the legend "Prior Art" in Fig. 10. In response, Applicants are submitting the attached replacement sheet of drawings in which the legend "Prior Art" has been added to Fig. 10. Applicants believe the objections to the drawings have been overcome, and respectfully request withdrawal thereof.

Allowed Claims

Claims 22-36 have been indicated as allowed. Applicants thank the Examiner for this notification.

§§ 102 and 103 Claim Rejections - Mori

Claims 1, 3-7 and 9-10 stand rejected under § 102(e) as anticipated by U.S. Patent No. 6,798,144 to Mori et al. ("Mori"). Claims 2 and 8 stand rejected under § 103(a) as obvious over Mori in view of the admitted prior art shown in Figs. 1 and 2 of the present application. Applicants respectfully traverse the claim rejections for at least the following reasons.

Independent claim 1, recites, *inter alia*:

- a front panel, wherein radiated visual light is transmitted outside the flat lamp through the front panel;
- a rear panel, which is separated from the front panel by a predetermined distance and hermetically sealed to the front panel; and

- a plurality of electrode groups formed in the rear panel, each electrode group comprising at least three electrodes.

Mori includes no disclosure or suggestion of the above-identified combination.

In the Office Action, Mori is cited as teaching a first glass panel (1) separated from a second glass panel (2) by a predetermined distance and hermetically sealed to the second glass panel (2). The Office Action indicates that a plurality of electrode groups (X) are formed in the first glass panel (1). However, it is respectfully submitted that the Office Action incorrectly asserts that radiated visual light is transmitted outside the Mori flat lamp through the second glass panel (2).

For the above proposition that radiated visual light is transmitted outside the flat lamp through the second glass panel (2), the Office Action cites column 8, lines 16-26 of Mori. However, this passage of Mori states: "when observing the luminous display from the first substrate side, this first substrate is a transparent substrate capable of transmitting therethrough the display light." (Mori, column 8, lines 16-19). The "first substrate" referred to in this passage of Mori is the first glass panel (1) having the plurality of electrode groups (X) formed therein. It is clear from column 7, lines 12-18 and 65-67 that the first substrate referenced in the above cited passage of Mori is the first glass panel (1) which includes the electrodes formed therein and is transparent for allowing radiated visual light to be transmitted outside the flat lamp therethrough. This is clear from Figs. 7 and 14 of Mori, as well as column 19, lines 15-18.

In contrast, independent claim 1 recites a front panel, wherein radiated visual light is transmitted outside the flat lamp through the front panel, and a rear panel having the plurality of electrode groups formed therein. Mori, on the other hand, discloses to form the electrodes in the same glass panel through which light is transmitted.

While a plurality of address electrodes (Y) are illustrated in Mori as being formed in the second glass panel (2), there is no disclosure or suggestion in Mori of forming any electrode groups comprising at least three electrodes in the second glass panel (2), which is equivalent to the rear panel of the claimed invention. Thus, Mori does not teach each and every element of the claimed invention.

Additionally, since Mori is directed toward a plasma discharge display device where the side at which light is output is important, claim 1 would not have been obvious to one of ordinary skill in the art based on the teachings of Mori. Mori teaches forming electrode groups in the panel where light is observed from the outside. There is no disclosure or suggestion in Mori of forming such electrode groups in a rear panel from which light is not transmitted.

The main idea of the present invention is that a voltage having an appropriate magnitude and polarity is sequentially applied to the plurality of electrodes such that a discharge voltage of the flat lamp can be decreased. The applying of a voltage in sequence is known in the plasma display panel ("PDP") field from Mori, but not known in the flat lamp field. There are major technical differences between flat lamps and PDPs. Thus, the present invention is inventive as well as novel.

For ease of reference, the main differences between PDPs and flat lamps are identified below.

	PDPs	Flat Lamps
Purpose of Use	Display	Lamp
Discharge type	Micro discharge	Macro discharge
Applied voltage	Low	High
Domain used for discharge	Negative glow domain	Positive glow domain

Accordingly, for at least the above-identified reasons, independent claim 1 is believed allowable over the prior art of record.

Dependent claims 2-10 depend cognately from independent claim 1, and add features which further remove the present invention from the prior art. Given at least the distinctions identified above, the dependent claims are believed allowable over the prior art and a separate discussion of the dependent claims will not be belabored for the sake of brevity.

New Claims 37-39

New claims 37-39 are similar to claims 1-3 but additionally recite "wherein two of said at least three electrodes are adapted to sustain a discharge voltage, and a third is adapted to function as an igniter for decreasing a discharge voltage". Mori basically discloses two pairs of discharge electrodes in each of its "groups" with one being in common. *See, e.g.*, column 20, lines 8-9, which identifies "first discharge sustaining electrodes X_A (X_{A-12}, X_{A-34}, X_{A-56} ...), [and] the second discharge sustaining electrodes X_B (X_{B-1} and X_{B-2}, X_{B-3} and X_{B-4}, X_{B-5} and X_{B-6} ...) ...". Thus, new claims 37-39 are believed allowable.

§§ 102 and 103 Claim Rejections - Saito

Claims 11, 14 and 21 stand rejected under § 102(e) as anticipated by U.S. Patent No. 6,747,407 to Saito et al. ("Saito"). Claim 17 stands rejected under § 103(a) as obvious over Saito. Applicants respectfully traverse the claim rejections for at least the following reasons.

Independent claim 11, as amended, recites, *inter alia*, a flat lamp including a front panel and a rear panel, with radiated visual light transmitted outside the flat lamp through the front panel, and a single electrode set comprising at least two electrodes selected from the plurality of electrodes included in the rear panel and at least one electrode selected from the

plurality of electrodes included in the front panel to correspond to the at least three electrodes, which constitute the single electrode set. Saito includes no disclosure or suggestion of the above-identified combination.

In the Office Action, Saito is cited as teaching a first glass panel (50) and a second glass panel (60). The first glass panel (50) corresponds to the recited front panel, and the second glass panel (60) corresponds to the recited rear panel. Saito discloses that light is radiated outside the device through the first glass panel (50). (Saito, column 3, lines 63-67; column 4, lines 24-31; and column 4, line 63 to column 5, line 1).

Saito discloses that two electrodes (120) are formed in the first (front) glass panel (50) and one electrode (130) is formed in the second (rear) glass panel (60). (Saito, Figs. 1 and 3-4). In contrast, independent claim 11 recites that the electrode set comprises at least two electrodes selected from the plurality of electrodes included in the rear panel, with the rear panel being the panel from which light is not transmitted. Saito, on the other hand, discloses only one electrode (130) included in the rear panel from which light is not transmitted. Thus, Saito does not teach each and every element of the claimed invention.

Additionally, since Saito is directed toward a plasma discharge display device where the side at which light is output is important, claim 11 would not have been obvious to one of ordinary skill in the art based on the teachings of Saito. Saito teaches forming electrode groups such that two electrodes are formed in the panel from which light is observed from the outside, and only one electrode is formed in the panel from which light is not transmitted.

Accordingly, for at least the above-identified reasons, independent claim 11, as amended, is believed allowable over the prior art.

Dependent claims 14, 17 and 21 depend cognately from independent claim 11, and add features which further remove the present invention from the prior art. Given at least the distinctions identified above, the dependent claims are believed allowable over the prior art and a separate discussion of the dependent claims will not be belabored for the sake of brevity.

Conclusion

Applicants invention is a novel flat lamp for use as a back light unit for displays, *e.g.*, a liquid crystal display, which includes structural features not found in the prior art. None of the cited art, taken alone or in combination, teaches or suggests Applicants' claimed invention. Accordingly, for at least the above-identified reasons, Applicants submit that claims 1-11, 14, 17, 21 and 37-39 are allowable over the prior art. Claims 22-36 have been allowed. Early notification of allowance of all claims is respectfully requested.

It is believed that this Response requires an extra claims fee of \$200.00. Accordingly, form PTO-2038 authorizing the payment of the extra claims fee is submitted herewith. The Commissioner is hereby authorized to charge any underpayment and credit any overpayment to Deposit Account No. 02-4800.

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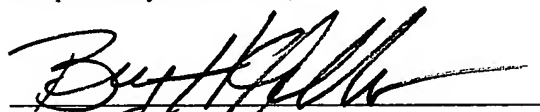
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Should any issues remain, the Examiner is invited to contact the undersigned at the number listed below to advance prosecution of the case.

Respectfully submitted,

Dated: MARCH 6, 2006



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FIG. 10 (PRIOR ART)

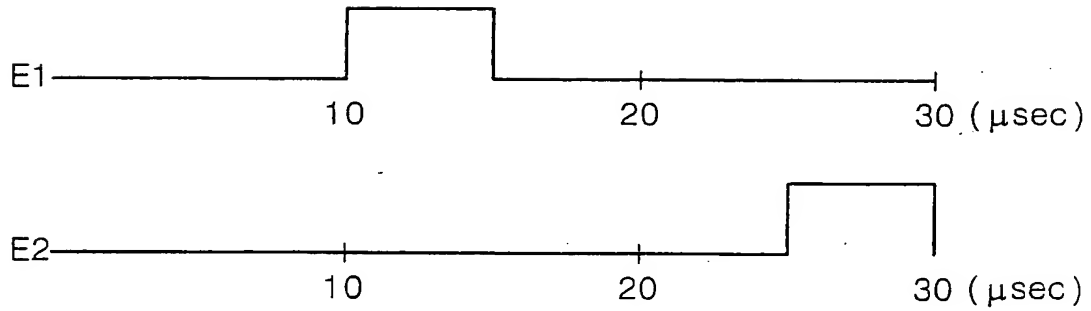


FIG. 11

